



## Erratum

# Erratum to: “Discrete symmetries for spinor field in de Sitter space” [Phys. Lett. B 613 (2005) 74]

S. Rouhani<sup>a</sup>, M.V. Takook<sup>b,\*</sup><sup>a</sup> Plasma Physics Research Center, Islamic Azad University, PO Box 14835-157, Tehran, Iran<sup>b</sup> Department of Physics, Razi University, Kermanshah, Iran

Received 13 September 2007

Available online 18 October 2007

The Letter [S. Moradi, S. Rouhani, M.V. Takook, Phys. Lett. B 613 (2005) 74] should be corrected by the following changes:

- The sentence below Eq. (21) originally read: In order to obtain the Minkowskian charge conjugation in the null curvature limit, the negative sign is chosen. *It should be replaced by:* In order to obtain the Minkowskian charge conjugation in the null curvature limit, the positive sign is chosen.
- Eq. (23) with sentence below originally read:

$$\begin{aligned} C\gamma^0 C^{-1} &= -\gamma^0, & C\gamma^4 C^{-1} &= -\gamma^4, \\ C\gamma^1 C^{-1} &= -\gamma^1, & C\gamma^3 C^{-1} &= -\gamma^3, & C\gamma^2 C^{-1} &= \gamma^2. \end{aligned} \quad (1)$$

In this representation  $C$  commutes with  $\gamma^2$  and anticommutes with other  $\gamma$ -matrix therefore the simple choice may be taken as  $C = \gamma^2$ .

*It should be replaced by:*

$$\begin{aligned} C\gamma^0 C^{-1} &= \gamma^0, & C\gamma^4 C^{-1} &= -\gamma^4, \\ C\gamma^1 C^{-1} &= \gamma^1, & C\gamma^3 C^{-1} &= \gamma^3, & C\gamma^2 C^{-1} &= -\gamma^2. \end{aligned} \quad (2)$$

In this representation  $C$  anticommutes with  $\gamma^2$  and  $\gamma^4$  and commutes with other  $\gamma$ -matrix therefore the simple choice may be taken to be as  $C = \gamma^2 \gamma^4$ .

The above equation and the following sentence has been repeated in the Letter [A. Pahlavan, S. Rouhani, M.V. Takook, Phys. Lett. B 627 (2005) 217] and should be corrected as well (Eq. (21)).

It is important to note that other equations and conclusions in these Letters are thoroughly correct and have not been affected by the above mentioned error since the derivation and solution of the problems discussed were independent of the  $\gamma$  matrices representation, altogether.

## Acknowledgements

The authors would like to thank the referee of Europhysics letters for his precise, and valuable observation which led to this correction.

DOI of original article: [10.1016/j.physletb.2005.03.030](https://doi.org/10.1016/j.physletb.2005.03.030).

\* Corresponding author.

E-mail address: [takook@razi.ac.ir](mailto:takook@razi.ac.ir) (M.V. Takook).